

Appl. No. 10/623,479
Amdt. dated June 13, 2006
Reply to Office Action of December 13, 2005

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1 1. (Currently Amended) A system for loading configuration data into a
2 programmable device, the system comprising:
3 a configuration word register comprising a plurality of configuration blocks;
4 a plurality of configuration inputs selectively coupled with each of the plurality of
5 configuration blocks and adapted to communicate configuration data; and
6 a plurality of command inputs adapted to independently enable loading of at least
7 one of the plurality of configuration blocks, wherein the plurality of configuration blocks are
8 adapted to simultaneously load configuration data via the plurality of configuration inputs in
9 response to the plurality of command inputs.
- 1 2. (Original) The system of claim 1, wherein each of the plurality of
2 configuration blocks is coupled with one of the plurality of command inputs.
- 1 3. (Original) The system of claim 1, wherein at least one configuration
2 block comprises a plurality of bits equal in number to the number of configuration inputs.
- 1 4. (Original) The system of claim 3, wherein at least one configuration
2 block comprises one or more bits, such that the total number of bits is less than the number of
3 configuration inputs.

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1 5. (Original) The system of claim 1, further comprising:
2 a configuration memory having a plurality of memory locations and coupled with
3 the configuration word register, wherein the configuration memory is adapted to load
4 configuration data from the configuration word register.

1 6. (Original) The system of claim 1, further comprising:
2 a configuration mode input; and
3 a configuration controller coupled with the configuration mode input, wherein, in
4 response to a first state of the configuration mode input, the configuration controller is adapted to
5 enable the plurality of configuration blocks to simultaneously load configuration data via the
6 plurality of configuration inputs in response to the plurality of command inputs, and, in response
7 to a second state of the configuration mode input, the configuration controller is adapted to
8 enable loading of configuration data into the configuration word register via an alternate
9 coupling with configuration data.

1 7. (Original) The system of claim 6, wherein the alternate coupling with
2 configuration data is via the plurality of configuration inputs.

1 8. (Original) The system of claim 6, wherein the alternate coupling with
2 configuration data is via the plurality of command inputs.

1 9. (Original) The system of claim 6, wherein the alternate coupling with
2 configuration data is adapted to simultaneously load a one bit of configuration data into each of
3 the configuration blocks.

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1 10. (Original) A method for loading configuration data for a configuration
2 word comprised of a plurality of configuration blocks into a programmable device, the method
3 comprising:

4 receiving a command word via a plurality of command inputs designating a first
5 subset of the plurality of configuration blocks;

6 receiving a data word comprising a portion of the configuration data for
7 configuration word via a plurality of configuration inputs; and

8 simultaneously loading the data word into each one of the subset of configuration
9 blocks designated by the command word.

1 11. (Original) The method of claim 10, wherein the steps of receiving the
2 command word, receiving the data word, and loading the data word are repeated for a second
3 data word and a second command word designating a second subset of the plurality of
4 configuration blocks.

1 12. (Original) The method of claim 11, wherein the second subset of the
2 plurality of configuration blocks does not intersect the first subset of the plurality of
3 configuration blocks.

1 13. (Original) The method of claim 10, wherein the command word
2 comprises a plurality of command bits, such that each command bit is associated with one of the
3 plurality of configuration blocks.

1 14. (Original) The method of claim 10, wherein at least one configuration
2 block in the first subset of the plurality of configuration blocks comprises a plurality of bits equal
3 in number to the number of configuration inputs.

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1 15. (Original) The method of claim 10, further comprising:
2 loading configuration data from the plurality of configuration blocks into a
3 memory location in a configuration memory.

1 16. (Original) The method of claim 10, further comprising:
2 receiving a configuration mode via a configuration mode input;
3 enabling the first subset of the plurality of configuration blocks to simultaneously
4 load configuration data via the plurality of configuration inputs in response to a first state of the
5 configuration mode; and
6 loading configuration data into the plurality of configuration blocks via an
7 alternate communication means in response to a second state of the configuration mode.

1 17. (Original) The method of claim 16, wherein the alternate
2 communication means is via the plurality of configuration inputs.

1 18. (Original) The method of claim 16, wherein the alternate
2 communication means is via the plurality of command inputs.

1 19. (Original) The method of claim 16, wherein loading configuration
2 data into the plurality of configuration blocks comprises:
3 simultaneously loading one bit of configuration data into each of the plurality of
4 configuration blocks.

1 20. (Original) The method of claim 10, further comprising:
2 testing the programmable device loaded with the configuration data.

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1 21. (Currently Amended) The method of claim 20, further comprising:
2 repeating with a second set of configuration data the steps of receiving a second
3 command word, receiving a second data word, loading the second data word, and testing in order
4 to test the programmable device loaded with the second set of configuration data.

1 22. (Currently Amended) A system having a plurality of devices, the system
2 comprising:
3 a programmable device including:
4 a configuration word register comprising a plurality of configuration blocks,
5 a plurality of configuration inputs ~~selectively~~ coupled with each of the plurality of
6 configuration blocks and adapted to communicate configuration data, and
7 a plurality of command inputs adapted to independently enable at least one of the
8 plurality of configuration blocks, wherein the plurality of configuration blocks are adapted to
9 simultaneously load configuration data via the plurality of configuration inputs in response to the
10 plurality of command inputs; and
11 an interface for connecting the programmable device with a configuration data
12 source.

1 23. (Original) The system of claim 21, further including:
2 a configuration source having a set of configuration data and adapted to
3 communicate the set of configuration data with the programmable device.

1 24. (Original) The system of claim 23, wherein the configuration source
2 includes a plurality of different sets of configuration data and is adapted to test the
3 programmable device by successively communicating each of the plurality of different sets of
4 configuration data with the programmable device.